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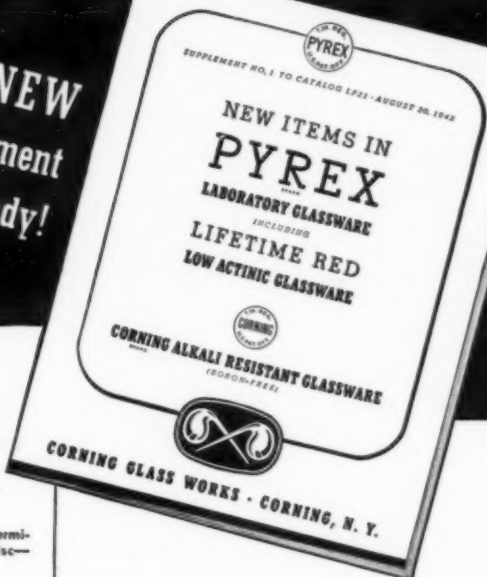
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New Councilor Appointed

Dr. W. D. Turner, assistant professor of chemical engineering at Columbia University, has been appointed to fill the vacancy on the Council of THE AMERICAN INSTITUTE OF CHEMISTS, caused by the death of Dr. Henry G. Knight. This term expires May 1, 1945.

Council Meeting

The next meeting of the National Council will be held on Thursday, October 1, 1942, at The Chemists' Club, New York, N. Y., at 6:30 p. m.

Editorial Advisory Board

Walter J. Murphy, F.A.I.C., editor of *Chemical Industries*, has been appointed chairman of an Editorial Advisory Board for THE CHEMIST. Other members are Hilton Ira Jones, F.A.I.C., managing director of Hizone Products Company, Wilmette, Illinois, and Howard S. Neiman, Secretary of the INSTITUTE.

New Members

At a recent meeting of the National Council, it was resolved that each member of the INSTITUTE be requested to suggest at least one applicant for membership during the current year, in order that the INSTITUTE may be even more representative of American chemists and thus increase its influence in its efforts to accomplish its objectives.

It is quite evident that every member is personally acquainted with at least one properly qualified non-member chemist, and a personal contact will undoubtedly result in convincing him of the importance of membership and the additional influence which he will have in placing the American chemist in the high professional position, in both his science and in the minds of the public, which he deserves.



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Inventors, Patents, and Legislators

By John A. Dienner, *Patent Attorney*

Brown, Jackson, Boettcher and Dienner, Chicago, Illinois

Talk given before a meeting of The American Institute of Chemists' members in Chicago, May 27th.

THE pushing of social reform in which America has been engaged has been carried to certain excesses which have tended to injure other institutions. The ship of social reform must not run too long on one track, or it will lose its way. One of the sufferers appears to be the patent system. In the guise of social reform, the usefulness of the patent system is being threatened. The patent system is a part of the economic system of capitalism and free enterprise. That it has been the basis of certain abuses in the past is not subject to question. The thing we are interested in is not the morality of certain users of the system, but rather it is to consider the utility of the system and to examine the actions of the courts and the legislators to see whether actions taken and proposed have the capabilities of improvement intended or of injury which should not be caused.

A Product of the Patent System

Mass production, which has given Americans a stream of new conveniences, constantly better and at constantly lower prices, is directly attributable to the American patent system. The first step in this direction was taken long ago, almost at the beginning of the U. S. patent system, but the full development of the system of mass production was not attained until about the beginning of the present century.

The American patent system, in counter distinction to any other in the world, makes the significant date upon which the inventor's rights depend as against a rival, that date when he actually made his invention. In all European countries the system prevails that the man who first files an application, unless it can be shown that he stole it from another secures the patent. That means that no man is safe in suggesting to another that he is working on a problem the solution of which involves

the making of an invention. It means that no man is safe in revealing his invention to another until after he has filed his patent application. This compels a degree of secretiveness and suspicion of which we in America are completely free. Here in America if I wish to put into mass production so simple a thing as a new can opener, I can produce my model and then freely take it to the various suppliers of steel, of forgings, of paint, of wood for the handle, of rivets, or any other component parts, and discuss with specialists in steel, wood, forgings, rivets, etc., my particular problem, make whatever revisions are necessary and establish my machinery for production without fear of losing the right to my invention.

The American patent system carries no taxes, no workings, and it is not hindered in any manner. The reward therefore to the inventor is more direct and less burdened with difficulties than the system of any other country. The patent system makes it possible for the inventor to call upon the public to contribute to the cost of his efforts in producing progress. In other words, without a patent system to make provision for the public to pay for the progress which science and the useful arts derive from inventors and discoverers, invention and discovery must be carried on at the expense of the inventors and discoverers who are in no position to carry the expense. The public itself must pay for progress, and the patent system is the method by which it is accomplished.

Difficulties of Present Situation

The patent system is an economic-social device. On the one hand, it is a method of opening up opportunity to him who will create new things, new utilities, new processes. On the other hand, it is a method of making the public pay for progress, and it is a regulator of business.

In recent years, the world has been in the throes of what we call "social reform". It appears to be an examination of conditions to see whether the distributable advantages of the world are being fairly distributed in proportion to the contribution of the respective participants in the world's work. While there has been an enormous amount of careful and critical study and examination of our economic, social, and political systems, there has been plenty of faulty thinking. People have been trapped by catch words and misled by fallacious economic theories. When the situation is analyzed, it will be seen that the present effort to produce social reform is attempting to effect two inconsistent purposes. On the one hand is the drive to provide economic security. The more

highly we become organized, the more necessary is it that the individual have a continued income; separate him from the payroll and all his rights are useless.

Muddled Thinking Is Destructive

While I do not mean to say that no improvement can be made in the system of granting and enforcing and utilizing patents, and I will in fact point out certain needed changes, nevertheless, we must constantly defend the system against misconceptions and muddled thinking, as well as against the attack of actual enemies. A great difficulty which friends of the system constantly observe is the failure to understand the basic nature of a patent.

The attitude of the Supreme Court on the question of invention has undoubtedly undergone deterioration in recent years. Let me refer to the pronouncement of Chief Justice John Marshall in the famous case of *Grant v. Raymond*, 31 U. S., Page 218, at page 241, in an opinion in which the Supreme Court sustained the granting of a reissue patent, even though the reissue of a patent was not authorized by statute. He said:

"The public yields nothing that it has not agreed to yield; it receives all which it has contracted to receive. The full benefit of a discovery, after its enjoyment by the discoverer for 14 years (now 17 years) is preserved; and for his exclusive enjoyment of it during that time the public faith is pledged."

The Supreme Court viewed it as a solemn pledge by the public that the law offered the exclusive right in the invention to the inventor in return for his disclosure to the public. And to the solemn performance of this bargain, as the great chief justice said, "the public faith is pledged".

Let me next call your attention to a decision in 1923 by Chief Justice William Howard Taft, in the famous case of *Eibel Process Co. v. Virginia Paper Co.*, 261 U. S., Page 45, at Page 63, in which the court sustained a patent on a process of making paper, in which the invention consisted merely in changing the inclination of the screen upon which the paper pulp was formed into a web. He said:

"In administering the patent law the court first looks into the art to find what the real merit of the alleged discovery or invention is and whether it has advanced the art substantially, if it has done so, then the court is liberal in its construction of the patent to secure to the inventor the reward he deserves."

Douglas Pronouncement

From these famous pronouncements by judges of the highest legal and judicial attainments, we come to the recent pronouncement of Justice Douglas, in the case of *Cuno Engineering Corp. v. The Automatic Devices Corp.* (decided Nov. 10, 1941). He said:

"We may concede that the functions performed by Mead's combination were new and useful. That does not necessarily make the device patentable. Under the statute the device must not only be new and useful. It must also be an invention or discovery. . . . That is to say, the new device, however useful it may be, must reveal the flash of creative genius, not merely the skill of the calling. If it fails, it has not established its right to a private grant on the public domain."

There are two unhappy statements in that quotation: First, the concept that a patentable invention or discovery must be the result of a flash of genius; and, second, that a patent is a private grant on the public domain, namely, the franchise theory of the Department of Justice.

As to the soundness of Justice Douglas' pronouncement, we must analyze the difference between his test and the test of Chief Justices Marshall and Taft. Chief Justice Marshall said that the public faith is pledged, since *the public yields nothing*, and it receives all it has contracted to receive. The Marshall statement clearly points out that the patent is not a private grant upon the public domain, but it is a grant which takes nothing from the public, but gives the public that which it contracted to receive. Chief Justice Taft said that the true way of evaluating the patent was to see whether the invention had made substantial advance in the art. That test is the *objective* test. It is the test of whether the invention really contributed something to the art.

The Douglas test of invention is *subjective*. It tests not the invention but the inventor. You can visualize what that would mean. The defendant may well put the inventor on the stand and say: "Why, your honor, this man does not look as though he ever had a flash of genius in his life."

What has it to do with the nature of the invention whether the man arrived at the result through a "flash of genius" or through the slow plodding of endless toil and sweat? Does it make any difference whether the inventive act smells of the brimstone of the thunderbolt, or whether it smells of the lamp?

Objectives of Senate Hearing

The periodic review of the patent system by the Senate committee on patents and the House committee on patents is highly desirable, to see that the needs of the public are actually promoted and that no unfair advantage accrues under a system intended to give the benefits of progress to the public and a reward to the inventor.

Particularly in view of the mistaken notion of the Justice Department as to the character of the patent, and the corrective decision of the Supreme Court in cases where abuse has arisen, the committees of Congress have for some time in the past, and are now interested to discover uses or abuses of the patent system which are antisocial in character. The particular occasion which has called into being the recent hearings is the relaxation of the patent monopoly in the war effort. The president correctly realizes the war powers which his office carries, and has advised the public and Congress that not only would foreign patents be seized, but that rights under United States patents necessary to the war effort are also subject to seizure as is any other property. The Senate committee, thereupon being relieved of the immediate necessity of legislation looking to preventing the execution of war measures by patent holders, stated in the press that it would have time for a long-range revision of the patent laws. The Senate committee then proceeded to examine various phases of the patent laws, and particularly whether or not seizure of patents under certain circumstances is desirable, or the granting of compulsory licenses is desirable, or whether antitrust measures should be written into the patent laws, etc. The hearings have not been as illuminating or constructive as they have been sensational.

Normal Contracts in Good Faith

In its search to discover antisocial uses of patents or the exercise of patent rights in an antisocial manner, the Standard Oil Co. (New Jersey), in respect to rubber manufacture, and the General Electric Co., in respect to Carboloy manufacture, have been held to public scorn for having entered into agreements with German companies in respect to interchange of patent rights.

It is my information that these contracts were made in peacetime and were normal contracts made in good faith. With the advent of war, there was unfortunately no power on the part of the contracting parties

to void or dissolve the contracts. While the state of war made it impossible, and in fact illegal to communicate with the other parties, nevertheless the contract presumably remains in force, and becomes effective again in peacetime. The Senate might well relieve the situation by permitting such a contract to be unilaterally canceled in the event of war or national emergency.

However, there was revealed a thought which is new and that is, that a company such as Standard Oil or General Electric or any other company or individual which, by its own voluntary agreement renounces the development in the United States of any commodity, facility or process which is or is likely to be of service to the people of the United States in wartime, is derelict in its duty to the public.

The principle presupposes an obligation upon the private corporation, for such Standard Oil Co. and General Electric Co. still are, as well as upon the individual, to safeguard the interest of the people at large by not disabling itself in respect of the production of any commodity or the performance of any process which is or may be of general utility to the nation in times of war or public danger.

The senate committee has, in introducing S-2491, rehashed some of the concepts of the monopoly committee (TNEC) which in my judgment were repudiated by the Congress, by the public, and by the patent bar at the close of the hearings.

It is my conviction that the Department of Justice has made these recommendations based upon misinformation as to the nature of the patent grant, just as I believe Justice Douglas was misinformed in designating patentable inventions solely as the product of a flash of genius, and in considering a patent as "a private grant upon the public domain".

S-2438 is thoroughly bad. It is a corporation licensing bill and provides severe penalties for any wrongful use of a patent, and also proposes to eliminate any restrictions in licenses to be granted under patents. It also fails to meet any need or to solve any problem which would advance the usefulness of the patent system, or outlaw any present abuse which the courts do not now have power to stop.

Subject to Public Convenience

All proposals to grant compulsory licenses heretofore have rested upon the proposition that where a man refuses to manufacture something under his patent, or does not manufacture enough to satisfy the public, a rival may step in and demand that he be permitted to share the market by working under the patent.

It is remarkable that no testimony establishing any such situation has been brought to the attention of Congress, nor was it brought to the attention of the monopoly committee. The fact is, such a situation is largely self-corrective.

A much more important concept is that which would permit the U. S. Government to exercise the right of eminent domain over a patent in any one of the following three instances: (1) in the case of any patent covering devices required in time of war or national danger; (2) any patent covering devices intended for national defense; (3) any patent covering devices charged with a genuine public interest. In brief, if we stick to the proposition that when an invention or the product thereof is charged with a public interest, it may, upon a proper showing, be condemned, or the use thereof condemned, for the benefit of the public, or a public convenience and necessity. We can follow rules of law long established for property in general.

In regard to the abuses of patents in restraint of trade or tying-in clauses or the like, the Sherman Act and the Clayton Act, and the decisions of the Supreme Court, are a satisfactory guide for antitrust action. After all, the patent is an innocent and harmless device in itself, and the mere misuse of it or the use of it to commit an unlawful act in no way contaminates the patent nor contaminates the system under which it was granted. If any antitrust legislation is necessary, it should rest upon its own merit, and not consist in the destruction of a segment of the patent system.

The Supreme Court has laid down clear lines as to what constitutes the abuse of patents, as in taking the royalty on something outside the monopoly of the patent, or in controlling unpatentable materials, supplies, etc. The principles covered by these Supreme Court decisions are clear and leave no one in doubt. Legislation in this direction is not necessary. No need for the same has been made out at the hearings, nor at any hearings with which I am familiar.

The American patent system has served us well. It is fundamentally sound, and it is far superior to the patent system of any other country. If any change requires to be made in it, it should be made in accordance with the American tradition, and with the sole purpose in mind of seeing whether such change will make it a better and more useful instrument in promoting progress of science and the useful arts. This is the true test. Any proposed change which does not meet the test should be decisively rejected.

The Chemist and the Union

By H. E. Wiedemann

This interesting article is reprinted from
The Hexagon of Alpha Chi Sigma, professional chemical fraternity.

THIS subject has more sides than a polyhedron. I have been trying to look at all sides for so long that I am beginning to feel like a crystal gazer. Unlike a seer, however, I have found no quick and easy solution to the problem. This article will be an attempt to present the facts and fancies as I see them.

It goes without saying that if a man wants to join a labor union of his own volition he should be permitted to do so. There is resentment, however, among our members to a man being threatened with a loss of employment if he does not affiliate with a union. In October I presented eight points to the Committee on Professional Standards as a basis for discussion. Many things have happened since then and we will consider some of them as we go along; but I still feel that if in some way these points could be brought to bear our troubles would be over. The chemist and engineer is right now enmeshed in a triangle, maybe not an "eternal triangle" but at least one from which it is hard to escape. On one angle we have the employer, on another the union, and on the third the National Labor Relations Board. If this triangle could be opened into a straight line what a wonderful thing it would be!

Let us consider the eight points:

- (a) Industry to classify all graduate chemists and engineers as professional men.
- (b) Employers to place all professional men on the management payroll.
- (c) Employers to place all professional men on a salary basis instead of an hourly wage.
- (d) The management to refrain from placing a floor for starting salaries and a ceiling for salaries after a predetermined period of employment.
- (e) Management to refrain from classifying floor and ceiling salaries according to the college degrees the men have when applying for employment.

(f) Industry to adjust wage scale for professional men who are often glaringly underpaid.

(g) The national officers of the labor unions to recognize "a" and to insist that all locals refuse admittance to professional men.

(h) The National Labor Relations Board to issue a regulation embodying "g."

a) The NLRB recognized chemists and engineers as professional men for the first time in the decision handed down on January 13. The unanimous decision of the Board was rendered in the case of the Shell Development Company and the Federation of Architects, Engineers, Chemists and Technicians. The controversy arose over the policy of the FAECT in trying to set up a bargaining unit consisting of both professional and non-professional employees. The NLRB held that professional employees cannot be forced into a heterogeneous bargaining unit unless the majority of them are in favor of such action. The American Chemical Society was the standard bearer for the chemist in this hearing and furnished expert legal talent. The Society has consistently entered the lists whenever the professional standing of the chemist was endangered, and is constantly on the alert.

The ACS *News Edition* citing various decisions comes to the conclusion that the term "professional" means: "An individual who has acquired knowledge of an advanced type in a field of science or learning customarily acquired by a prolonged course of specialized intellectual instruction and study." The U. S. Supreme Court has held that, "The chemist who places his knowledge, acquired from a study of the science, to the use of others as he may be employed by them, and as a vocation for the purpose of his own maintenance, must certainly be regarded as one engaged in the practice of a profession which is generally recognized in this country." It is evident from these decisions that already "a" is beginning to be recognized.

b and c) Union officials consider men on the management payroll as part of the management and do not hold them eligible for membership. In many plants, also, the men on a salary basis instead of an hourly wage are not approached by the union. On the other hand, in nearly every plant where chemists and engineers are paid by the hour, an attempt is made to unionize them. If points "b" and "c" generally applied, the question will not be solved by any means but we will have taken a big step in that direction.

d) This business of maintaining a hard and fast figure as a starting salary for a professional man and a stated limit above which he may not aspire after a definite period of employment is right down the unions' alley. A wage program of this nature is so much like the unions' wage scale set-up that one can hardly blame the union officials for considering new employees under such a scheme as definite material for the union roster. I feel that each professional man should be employed with the understanding that he will earn what he is worth to the company and that the salary will increase commensurate with his abilities. This seems elemental but some of our large firms do not practice it.

e) Comments under this point are similar to those immediately above. Furthermore, I see no reason why a man should be told that his starting salary will be controlled by the college degree he holds and that he can not get into a higher bracket unless he has higher degrees. This certainly smacks of unionism. What difference does it make which degree a man has if he can do the work and prove himself capable of advancement?

f) After all, the best argument the union can present in its invitation to the professional man is an increase in personal income. There may be some instances where the chemist works under unsanitary conditions with killing long hours but I have not run across them. We will grant that many chemists and engineers have been underpaid in the past, but that is largely "in the past". Employers have had to adjust themselves to this young giant, and have had to realize that chemistry is so essential to modern industry that its disciples must be paid accordingly. If industry grants professional salaries as good as or better than the union demands, the whole thing will blow up, and from my own observation I am seeing that happen time after time. I have interviewed many chemists during the years, and I have yet to find one who wants to join a union if he can help it. A few chemists are members of labor unions but there was no way out for them. They had to work and could not assume the risk of quitting their jobs without another in sight. We have no criticism to offer with that attitude.

The scientific publications and trade journals have devoted many pages to this subject. This is influencing employer and employee alike, and salaries are being gradually raised to higher levels. Many of our older members can well remember when the monthly wage of an industrial chemist was about the same as weekly salaries now. The cost of

living has gone up, of course, during that period, but I venture to say it has not increased four-fold.

g) This is a curious situation. Why it exists no one knows. In some districts the union locals refuse admission to chemists, engineers, and other professional men on the ground that they are not eligible under the rules. In other areas the reverse holds. It is evident, from the public press, that the national officers of the labor unions have a tenuous control over the actions of their locals, and in some instances they have disclaimed responsibility for local activities. Until this is rectified we may not expect the thought expressed in "g" to materialize. If it ever does, however, we will not only have taken a step forward, but we will have gone the whole way.

h) The NLRB may be the instrument to enforce the regulation embodied in "g". It may be that the decisions rendered by the NLRB and the Supreme Court are pointing in that direction. Let us hope so.

In conclusion one can say that the unions fulfill a useful function and have been tremendously successful in advancing the cause of labor. We have no fault to find with them as such but we do feel that professional men have no place in such organizations. The solution to this problem is not around the corner. Some system of licensing chemists has been suggested. Many crafts have licensing requirements but that has not affected union eligibility, and we must look farther.

This article is not to be construed as a committee report. The thoughts expressed are my own; and I would like comments and criticisms for the further guidance of the committee which will give a report, through its chairman, at the Seventeenth Biennial Conclave, of Alpha Chi Sigma.



If you accept my thesis that the origin of science lies in the pre-history period of man and that its advancement is a product of the human intellect, you must also concede that the stage modern science has reached is the greatest triumph of the human mind . . . I can never believe that man, notwithstanding the terrible mess he has made of his social and economic problems, has not the brain capacity eventually to solve them.

—Dr. E. P. Phillips, president of the South African
Association for the Advancement of Science

Frederick Hutton Getman

It is with deep regret that THE AMERICAN INSTITUTE OF CHEMISTS records the death of Frederick Hutton Getman in December, 1941.

Dr. Getman was born February 9, 1877 in Oswego, N. Y. He studied at The University of Virginia, and The Johns Hopkins University from which he received the Ph.D. degree in 1903. From 1903 to 1904, he was a Fellow at Carnegie Institution. He taught school from 1904-1907, and was associate professor of chemistry in Bryn Mawr College from 1907 to 1915. He specialized in general and physical chemistry, photography and inorganic chemistry, and maintained a private laboratory, the Hillside Laboratory of Stamford, Conn., until the time of his death. Dr. Getman is well known for his research on the theory of solutions and electrode potentials, and developed, with H. C. Jones, the solvate theory. During the past thirty years he was the author of numerous papers which appeared in the *Journal of the American Chemical Society*, the *Journal of Physical Chemistry* and other technical papers.

Among the societies to which Dr. Getman belonged were the American Association for the Advancement of Science, The American Chemical Society, London Chemical Society and the *Nederlandisch Chemische Vereniging*.

He became a member of THE AMERICAN INSTITUTE OF CHEMISTS in 1938.

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For Fellows:

Allen, Robert A.

Chief Chemist, Nuodex Products Co., Inc., 830 Magnolia Avenue, Elizabeth, N. J.

Charlton, Ralph W.

Chemist, Congoleum Nairn, Inc., Kearny, N. J.

Colman, S. Stephen

Chemist, U. S. Rubber Company, Passaic, N. J.

Cook, E. William

Research Chemist, American Cyanamid Company, Stamford, Conn.

Craig, Ralph Whitney

Chemist and Sales Engineer, Diamond Alkali Company, Painesville, Ohio.

Drimer, David

Clover Leaf Paint & Varnish Corp., 43-43 Vernon Blvd., Long Island City, N. Y.

Fibel, Lewis R.

Chemist, W. M. Grosvenor Laboratories, Inc., 50 East 41st Street, New York, N. Y.

Fiekers, Rev. Bernard A., S. J.

Department of Chemistry, Holy Cross College, Worcester, Mass.

Frazier, Ralph B.

Technical Director, American Lacquer Solvents Co., Phoenixville, Pa.

Hancock, Henry E.

Superintendent, Sewall Paint and Varnish Company, Kansas City, Mo.

Manning, Paul De Vries

Director of Research, International Minerals and Chemical Corporation, 20 North Wacker Drive, Chicago, Ill.

Nairne, John Inglis

A. J. Lynch & Co., 2424 Enterprise Street, Los Angeles, Cal.

Schneiderwirth, Herman J.

Pharmaceutical Research, Therapeutic Research Company, 72 Centre Avenue, New Rochelle, N. Y.

For Associates:

Imbriani, Warren B.

Chemist, Bakelite Corporation, Bound Brook, N. J.

Kuder, Robert C.

Organic Chemist, Standard Oil Company of Indiana, Whiting, Ind.

Lewis, Charles E.

Chemist, Calco Chemical Division of American Cyanamid Company, Bound Brook, N. J.

Long, Robert Sidney

Sunrise Farm, Mt. Horeb Rd., Martinsville, N. J.

Nies, Abby Ware

Research Chemist, Calco Chemical Division of American Cyanamid Company, Bound Brook, N. J.

Scholz, Theodore F.

Sunrise Farm, Mt. Horeb Rd., Martinsville, N. J.

For Junior:

Ely, Robert E.

Chemical Engineer, Galigher Company, Salt Lake City, Utah.

CHAPTERS

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Vice-chairman, Hiltner I. Jones

Secretary-treasurer, Charles L. Thomas

Universal Oil Products Company,
Riverside, Illinois.

The organization meeting of the Chapter was held on June 19, 1942, at which officers were elected.

Dr. Otto Eisenschiml president of the Scientific Oil Compounding Company, Chicago, is speaking on "The Chemist in Three Wars—What chem-

ists have done in previous wars; what American chemists are doing, and not doing, to help win the present war," at the September 18th meeting of the Chapter. This informative talk will be reprinted in full in the October issue of THE CHEMIST.

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CHEMISTS

Ernest W. Reid, F.A.I.C., chief, Chemicals Branch, W.P.B., recently announced the appointment of distinguished American chemists and chemical engineers as an advisory committee on technical processes. The committee's function will be to pass upon the relative merits of competing chemical processes in the war effort. Findings will be determined on the basis (a) which process can be placed in production soonest, and (b) which uses the smallest amount of critical materials. The advisory committee will

evaluate testimony and recommend adoption of one process or another, determined by its ability to be of service to the war program. Dr. Donald B. Keyes, F.A.I.C. has been appointed chairman of the committee. Members are: Marston T. Bogert, F. A.I.C., Joel H. Hildebrand, S. C. Lind, Frank C. Whitmore, Gustavus J. Esselen, F.A.I.C., Carl S. Miner, Foster D. Snell, F.A.I.C., Charles C. Brown, Charles R. Downs, F.A.I.C., Sidney D. Kirkpatrick, and Fred H. Rhodes.

The Polytechnic Institute of Brooklyn is offering a course beginning this Fall on the reading of Chemical Russian, Tuesday evenings throughout the term of 1942-1943. It is designed to give a mastery of the grammatical principles and the vocabulary necessary for the translation of technical articles from Russian reference books and periodicals. Applicants need not have previous experience with the Russian language but must have studied some other modern foreign language.

The work will involve supervised study and translation from chemical journals. It will be taught by Dr. Karl Steik, F.A.I.C. a well known consulting chemist and an accomplished linguist.

Details may be obtained from Professor Raymond E. Kirk, of the Department of Chemistry, 99 Livingston Street, Brooklyn, N. Y.



New Dates and Location for National Chemical Exposition

The Chicago Section of the American Chemical Society announces a change in dates and location for its second National Exposition, owing to the acquisition of the Stevens Hotel in Chicago by the United States Army. The exposition has been transferred to the Sherman Hotel, Clark and Randolph Streets, Chicago, and will be held November 24th to 29th, instead of a week earlier as previously announced.



Paul Allen, Jr., F.A.I.C., formerly of Lynchburg College, Lynchburg, Virginia, is now at Stephen's Institute of Technology, Hoboken, N. J.

Business establishments engaged in war production are going to be told within the next few weeks where and how they can obtain chemists, engineers, metallurgists and other professional and scientifically trained men, Paul V. McNutt, Chairman of the War Manpower Commission announced today. He said that representatives of the U. S. Employment Service have been instructed to find out how many employees of this type war production plants will require before the end of the year and during 1943.

With this information at hand the Employment Service, Mr. McNutt explained, can draw upon the country's largest registration of technically trained persons, the National Roster of Scientific and Professional Personnel. This roster, to which are now being added the names of the scientifically and professionally trained persons who have registered for military service, has been placed under the direction of the War Manpower Commission. The U. S. Employment Service will attempt to place only those persons who are now unemployed or not engaged in work essential to the prosecution of the war.



Foster Dee Snell, F.A.I.C. recently addressed the Western Connecticut Section of the American Chemical Society at Stamford on the subject "Some Factors in Detergency". In his speech Dr. Snell pointed out that the removal of soil from textiles, dishes, metal, the skin, and other surfaces depends on the same factors with minor differences in their quantitative evaluation. He outlined the known factors which control the efficiency of a detergent and illustrated their application.

Dr. Gustav Egloff testified at the House Mines and Mining Committee's gasoline-from-coal hearing on June 18th. According to *National Petroleum News*, Dr. Egloff informed the committee that "to produce 3000 bbls. daily of gasoline from coal at England's \$40,000,000 hydrogenation plant at Billingham, requires the labor of 6000 men, whereas in this country a \$2,000,000 cracking plant with petroleum from a single well and the labor of 150 men could manufacture the same amount of gasoline and at about one-third the per-gallon cost.

"We haven't tapped our oil resources as yet, although it is becoming a little more difficult to locate", said Dr. Egloff, adding that he had a theory that petroleum is being made at the present time "probably faster than we can consume it.

"There is a periodicity of the prognostications that we will soon be out of oil.

"... a graph of these prognostications, shows that as early as 1850—the year after Colonel Drake brought in the first oil well in the U. S.—there was a fear of oil exhaustion."

The American Section of the Society of Chemical Industry announces the election of the following officers for the year 1942-43. Chairman, Dr. Foster D. Snell, F.A.I.C.; Vice Chairman, Dr. Norman A. Shepard, F.A.I.C.; Honorary Secretary, Mr. Cyril S. Kimball, F.A.I.C. and Honorary Treasurer, Mr. J. W. H. Randall, F.A.I.C.

The following new Committee members were elected to take the place of retiring members. Mr. Edward R. Allen, F.A.I.C., Mr. Francis J. Curtis, Dr. Donald Price, F.A.I.C., Mr. Archie J. Weith, F.A.I.C. and Dr. Lincoln T. Work, F.A.I.C.

Foster Dee Snell, F.A.I.C. recently addressed the Niagara Chapter of THE AMERICAN INSTITUTE OF CHEMISTS at Buffalo on the subject of licensure for chemists.

The Polytechnic Institute of Brooklyn announces a course on "Modern Chemical Theories" which is to be given by Professor Henry Eyring. Professor Eyring, visiting professor of physical chemistry from Princeton University, will lecture to the Graduate School on alternate Fridays from 8:00 to 10:00 P.M., beginning on October 2, 1942. This course is a part of the regular graduate program of the Polytechnic Institute. Those interested may obtain information from Professor Raymond E. Kirk, Department of Chemistry at Polytechnic Institute, Brooklyn, N. Y.

Dr. Harrison E. Howe, editor of *Industrial and Engineering Chemistry*, will be awarded the medal of the Society of Chemical Industry for 1942. This medal is awarded annually to "a person making a valuable application of chemical research to industry." The award will be presented at a joint meeting of the American Section of the Society of Chemical Industry and the New York Section of the American Chemical Society in New York on November sixth.

The Alien Property Custodian has announced that his office has taken over control of General Dyestuff Corporation, Byk, Inc., and Siemens, Inc. all of New York, and Ajax Transportation Company, Nashville, Tennessee.

BOOKS

INTRODUCTION TO COLLEGE CHEMISTRY.

By William McPherson, William Edwards Henderson, W. Conard Fernelius, Laurence Larkin Quill. Ginn and Company, 1942. 6" x 9". 608 pp. \$3.50.

This is a first-year text on chemistry which covers an unusually large number of subjects. It is exceptionally well illustrated and is written in a particularly interesting style. A very fine selection of reading references are given at the end of each chapter, and the dramatic, interesting side of chemistry is stressed to hold the student's interest and give him a fascinating picture of the part which chemistry plays in our present world. Preparation of the student's mind for organic chemistry is given through the introduction of carbon compounds. It is these compounds which occur in so many things connected with the student's experience that to omit them would deprive him of the knowledge of the close connection between chemistry and his natural world.

The foundations of chemistry are stressed, but not war chemistry, for the philosophy of science is that the world will continue in spite of war, and thus to stress only those topics concerned with warfare is to ignore the permanent foundations of the science. There is an excellent brief summary of the history of science followed by energy and chemical reactions, atomic theory, etc. The Appendix includes a list of journals and books which will be particularly interesting to the student of inquiring mind. For its interesting style, its conciseness, and its survey of the field of chemistry, this book is warmly recommended.

MANUAL FOR EXPLOSIVES LABORATORIES.

By G. D. Clift and Dr. B. T. Federoff. *Lefax Inc.* 4" x 7". 230 pp. \$2.00.

Mr. Clift is chief chemist of the Hercules Powder Co. (Virginia Ordnance Works), Glen Wilton, Virginia. Dr. Federoff is chief chemist of Fraser-Brace Engineering Company, (Keystone Ordnance Works), Geneva, Pennsylvania. These authors have prepared a manual for analysts in explosives laboratories, which covers the analysis of acids, raw materials and finished products used in TNT, nitroglycerine, etc. The purpose of this manual is to make it easier to train new personnel in the explosives industry. New material, including short cuts and modifications of usual analytical procedures, is given. Few chemists have specialized in explosives, and in order to facilitate the task of men responsible for the training of inexperienced personnel, the detailed manipulations in order of their succession are included. A bibliography on explosives other than TNT is an additional feature.

This manual has been so well accepted that the first edition, completed June first, has been sold out. The second edition slightly revised, is now available. The book is printed in loose-leaf form.



Corning Glass Works has just announced a new sixteen page Catalog Supplement on Laboratory Glassware. New items and new lines are introduced, such as "Pyrex" Blood Bank Bottles, Lamp Sulfur Determination

Apparatus and Fritted Disc, Distilling Receivers with Standard Taper Ground Joints, Bray Type Anaerobic Culture Dish, Lifetime Red Low Actinic Glassware (43 new items), and "Corning" Alkali Resistant (Boron-Free) Glassware.

This new Catalog Supplement may be obtained by writing to the Laboratory and Pharmaceutical Division, Corning Glass Works, Corning, N. Y.



"The 1941 Statistical Abstract of the United States" is now available from the Superintendent of Documents, Government Printing Office, Washington, D. C. or from the U. S. Department of Commerce, Regional Offices.

This abstract contains 1,056 pages of information on important phases of social, economic, and industrial life. Many of these tables give figures from the earliest available dates and are useful in the studies of long-time trends. Some of the subjects included are population, vital statistics, education, employment, wages, prices, wholesale and retail trade, national income, and business finance, etc. The price is \$1.50 per copy. A twenty-five per cent discount is allowed to purchasers of lots of 100 or more copies.



"Trade and Professional Associations of the United States" is the title of a directory of organizations prepared by the Department of Commerce. It includes 3,100 national and interstate trade and professional asso-

ciations. Copies may be obtained from the Superintendent of Documents, Government Printing Office, Washington, D. C. at seventy cents each.



"The Treasury of Science" is a new series of low-priced (\$1.25) pocket-size books designed to serve students and intelligent readers by dealing authoritatively with varied aspects of modern scientific knowledge. The authority and reliability of each book will be assured by a Board of Editors which now includes Dr. Alvin Johnson, Director of the New School for Social Research, Professor Harlow Shapley of Harvard University, and Dr. Alfred E. Cohn of the Rockefeller Institute. They will select the subjects and authors, and approve the texts. It is planned to have the volumes written by authoritative scholars. They are not to be textbooks or to have a great apparatus in the way of footnotes or references. They are to be written abreast of the knowledge of today and to include as much of the history of the subjects as to make their contemporary position understandable. They are to be introductory volumes but not to contain "talked down" material, but rather to communicate information in free and lively style. Each book will have 200 pages of type and illustrations. The size of the books will be 4¼" by 6¾".

Members of the INSTITUTE are invited to communicate with the "Treasury of Science", L. B. Fischer Publishing Corp., 381 Fourth Avenue, New York, N. Y., about manuscripts which might be suitable for publication in this series.

PRINCIPLES OF GENERAL CHEMISTRY.

By Stuart R. Brinkley. *The Macmillan Company*. 1941. 3rd Edition. 6" x 9½". 703 pp. \$4.00

This new edition, like its predecessor, is intended to meet the requirements of a general college course for students who have had some work in chemistry. A review of essential facts is given with emphasis on the interpretation and significance of these facts.

The author, associate professor of chemistry at Yale University, has planned this book so that a sound basis for scientific reasoning is provided. The atomic and kinetic theories are developed followed by the chemistry of oxygen and hydrogen, to present further applications of the atomic theory, and to give a review of chemical equations and calculations. The alkali and halogen metals afford a background of experimental data for the discussion of ionization and ionic reactions. All materials have been brought fully up to date. Theoretical material is largely covered in the first half of the book which prepares the student for the reactions involved in qualitative analysis. Industrial applications and processes are included throughout to indicate the importance of chemistry in the modern world. The production and consumption statistics of many materials, taken from recent sources, add to the interest which this book will have for students preparing for a career in the industrial world. The Appendix contains many useful tables.

This book is particularly recommended for its clarity and easily understood presentation of difficult matter. It is well illustrated, with modern

photographs, drawings and tables. The list of supplementary readings following each chapter is particularly interesting to those who wish to read further on any given subject. This book is not only an excellent text, but one which is suitable for reference on the subjects covered.

Hudson Valley

Here in the valedictory of falling leaves

I walk with musing and with ecstasy,

That there should be such flaunting times as these

When Beauty walks abroad for all to see.

The flaming maples, in a multi-colored tide

Of burning yellow and of brilliant red,

Surge from the valley to the mountainside

As if to melt the rocks from overhead.

And from this spot, and from that one by the trees

Arise the spiraling lines of lambent smoke

From the raked piles of crackling leaves.

They are the souls of maple and of oak—

Returning to the air the elemental things—

They will be leaves again with blossoming Spring.

Robert Spencer Barnett, F.A.I.C.

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United States Civil Service Examinations

The United States Civil Service Commission announces that Junior Metallurgists are needed to conduct investigative development, or production work in various branches of metallurgy; to assist in the design, construction, installation, and operation of metallurgical equipment; or to perform metallurgical work in the recovery or fabrication of metals.

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Occupational Bulletin No. 10 from National Headquarters of the Selective Service System, Washington, D. C. lists critical occupations as certified by the National Roster of Scientific and Specialized Personnel, and requests consideration for occupational classification of all persons trained, qualified, or skilled in these critical

occupations who are engaged in activities necessary to war production or essential to the support of the war effort. Critical occupations listed are: Accountants, chemists, economists, engineers, geophysicists, industrial managers, mathematicians, meteorologists, naval architects, personnel administrators, physicists, astronomers, psychologists, and statisticians.

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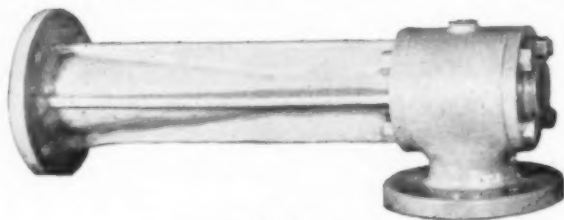
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